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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/808,240	03/15/2001	Hideo Ando	204331US-2S	6633

22850 7590 11/20/2002

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EXAMINER
CHIEU, PO LIN

ART UNIT	PAPER NUMBER
2615	

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/808,240	ANDO ET AL.	
	Examiner	Art Unit	
	Polin Chieu	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 July 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *20-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *20-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 20-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saeki et al (6,078,727) in view of Lenihan et al (6,169,843).

Regarding claims 20 and 25, Saeki et al discloses a plurality of data units included in stream data (fig. 10); each one of the plurality of data units (VOBU) includes one or more data packets (fig. 10); and the memory is a memory device which has a data area for recording the stream data using the one or more data packets (fig. 6, AV FILE1), each one of the plurality of data units (VOBU) being larger than the one or more data packets (fig. 10), and a management area for recording the management information that pertains to the stream data (AVDATA MANAGEMENT FILE). However, Saeki et al does not disclose recording time stamp information, and management information indicating an arrival time of a first packet of a first one of the plurality of data units.

Lenihan et al teaches recording time stamp information (PTS or DTS) in at least one of the packets (col. 5, lines 1-19); and a arrival time stamp (ATS) indicating the arrival time of a first packet of a first one of the plurality of data units (col. 7, lines 34-42).

It would have been highly desirable to have presentation time stamps (PTS) and/or decoding time stamps (DTS) so that the device can determine the proper time to display and/or decode data from an optical disc recording medium. Lenihan et al teaches that it would have been highly desirable to have management information indicating the arrival time of a first packet so that proper synchronization on playback is achieved. In fact Lenihan et al suggests the use of his teaching in an optical disc system (col. 4, lines 1-17)

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to record time stamp information and management information indicating the arrival time of a first packet in the device of Saeki et al.

Regarding claims 21 and 26, Saeki et al discloses recording, in the management area, at least a time difference value (fig. 11) corresponding to a difference between a first time stamp recorded in a first data unit and a second time stamp recorded in a second data unit, said first and second data units being included in the plurality of said data units (col. 10, line 22 – col. 11, line 37).

Regarding claims 22 and 27, Saeki et al does not explicitly disclose determining the time difference value by rounding to a predetermined number of effective digits a difference between a time information value corresponding to the second time stamp and a time information value corresponding to the first time stamp.

Saeki et al discloses determining a time difference by determining the time difference between two time stamps, as discussed in the art rejection of claim 21. It is well known in art of mathematics to round to a predetermined number of digits. For

example, 1/3 is often rounded of to a predetermined number of digits, such as .333. However, 1/3 is not a finite number.

It would have been highly desirable to round the time difference value to a predetermined number of digits to simplify the time difference operation and reduce the number of bits needed to store the time difference value.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to round the time difference value to a predetermined number of effective digits in the device of Saeki et al.

Regarding claims 23 and 28, Saeki et al discloses computing the time difference value using a value of the first time stamp recorded in the first one of the data packets located in each of the data units (col. 10, line 22 – col. 11, line 37).

Regarding claim 24 and 29, Saeki et al discloses computing the time difference (col. 10, line 22 – col. 11, line 37). However, Saeki et al does not disclose recording a time stamp in one of the data packets at an end of a last one of the data units included in the stream data indicating an arrival time of a last one of the data packets in the last one of the data units; and computing the time difference value using the arrival time of the last one of the data packets.

Lenihan et al teaches recording a time stamp in one of the data packets at an end of a last one of the data units included in the stream data indicating an arrival time of a last one of the data packets in the last one of the data units (col. 8, lines 1-5). Lenihan et al teaches that the ATS are used to determine if a discontinuity exist in the ATS (col. 3, lines 12-22). If a discontinuity exists (e.g. a dropped packet of data) then

the time difference information according to first and second time stamps would not be correct because the first and second time stamps have not been corrected for the discontinuity. Therefore, it would have been obvious to compute the time difference value using the arrival time to insure that a correct time difference is obtained.

Lenihan et al teaches that it would have been highly desirable to record a time stamp at the end of a last one of the data units so that there is significantly improved flexibility in both recording and playback of transport packets (col. 8, lines 1-20). It would have been highly desirable to compute the time difference using the arrival time of the last one of the data packets so that the calculated time difference is corrected for discontinuities in the stream data.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to record a time stamp at the end of a last one of the data units; and compute a time difference using the arrival time in the device of Saeki et al.

Additionally regarding claims 24 and 29, the examiner considers Lenihan et al to teach computing of the time difference value using the arrival time of the last one of the data packets in a different manner. Therefore, an additional art rejection regarding claims 24 and 29 is provided below.

Regarding claim 24 and 29, Saeki et al does not disclose recording a time stamp in one of the data packets at an end of a last one of the data units included in the stream data indicating an arrival time of a last one of the data packets in the last one of the data units; and computing the time difference value using the arrival time of the last one of the data packets.

Lenihan et al teaches recording a time stamp in one of the data packets at an end of a last one of the data units included in the stream data indicating an arrival time of a last one of the data packets in the last one of the data units (col. 8, lines 1-5); and computing the time difference value using the arrival time of the last one of the data packets (col. 12, line 9-25). Note: a comparison to determine if a value is greater than another value is determined by taking the difference between two values, and determining if the result is zero, positive (means the first value is greater than the second), or negative (means the first value is less than the second).

Lenihan et al teaches that it would have been highly desirable to record a time stamp at the end of a last one of the data units so that there is significantly improved flexibility in both recording and playback of transport packets (col. 8, lines 1-20). It would have been highly desirable to compute the time difference using the arrival time of the last one of the data packets so that the device can be determined if further time stamp discontinuities exist.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to record a time stamp at the end of a last one of the data units; and compute a time difference using the arrival time in the device of Saeki et al.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sawabe et al and Yamane et al are background art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Polin Chieu whose telephone number is (703) 308-6070. The examiner can normally be reached on M-F 8:30 AM-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew B. Christensen can be reached on (703) 308-9644. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

ANDREW CHRISTENSEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

PC
November 15, 2002